# Refine Search

# Search Results -

| Terms                     | Documents |
|---------------------------|-----------|
| L3 AND (514/\$ OR 562/\$) | 14        |

US Pre-Grant Publication Full-Text Database US Patents Full-Text Database

US OCR Full-Text Database Database:

**EPO Abstracts Database** JPO Abstracts Database

**Derwent World Patents Index** 

IBM Technical Disclosure Bulletins

Search:

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|    |      |      | M. Angel Company of Paris | 7 |
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Refine Search

Recall Text

Clear

Interrupt

# Search History

DATE: Thursday, October 11, 2007 Purge Queries Printable Copy Create Case

| Set Name side by side | Query                               | Hit Count   | Set Name result set |
|-----------------------|-------------------------------------|-------------|---------------------|
| DB = PGPB, U          | SPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR= | YES; OP=ADJ |                     |
| <u>L4</u>             | L3 AND (514/\$ OR 562/\$)           | 14          | <u>L4</u>           |
| <u>L3</u>             | calixarene.ti.                      | 395         | <u>L3</u>           |
| DB=USPT; P            | LUR=YES; OP=ADJ                     |             |                     |
| <u>L2</u>             | calixarene.ti.                      | 49          | <u>L2</u>           |
| <u>L1</u>             | 5210216.pn.                         | 1           | <u>L1</u>           |

END OF SEARCH HISTORY

# **Hit List**

Print 2 **Fwd Refs Bkwd Refs** First Hit Clear Generate Collection Generate OACS

Search Results - Record(s) 1 through 10 of 14 returned.

☐ 1. Document ID: US 20060083748 A1

L4: Entry 1 of 14

File: PGPB

Apr 20, 2006

PGPUB-DOCUMENT-NUMBER: 20060083748

PGPUB-FILING-TYPE:

DOCUMENT-IDENTIFIER: US 20060083748 A1

TITLE: Calixarenes for use as excipient for an active substance

PUBLICATION-DATE: April 20, 2006

INVENTOR-INFORMATION:

COUNTRY CITY STATE NAME

DΕ Neu-Ulm Wolf; Hans-Uwe DE Blaustein Dormann; Jorg Martin

US-CL-CURRENT: 424/184.1; 514/772, 534/653, 536/22.1, 536/46

Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw. De

2. Document ID: US 20040087666 A1

May 6, 2004 L4: Entry 2 of 14 File: PGPB

PGPUB-DOCUMENT-NUMBER: 20040087666

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040087666 A1

TITLE: Calixarene-based guest-host assemblies for guest storage and transfer

PUBLICATION-DATE: May 6, 2004

INVENTOR-INFORMATION:

COUNTRY CITY STATE NAME Atwood, Jerry L. Columbia MO US Columbia MO US Barbour, Leonard J. Columbia US Jerga, Agoston MO

US-CL-CURRENT: <u>514/734</u>; <u>568/718</u>

T: 3. Document ID: US 20020002290 A1

L4: Entry 3 of 14

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020002290

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020002290 A1

TITLE: Calixarenes and their use for sequestration of metals

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

| Nicholson, Graeme P. Reading GB Kan, Mark J. Reading GB Williams, Gareth Reading GB Drew, Michael G. Reading GB Beer, Paul D. Oxford GB | NAME                 | CITY    | STATE | COUNTRY |
|---|----------------------|---------|-------|---------|
| Williams, Gareth Reading GB Drew, Michael G. Reading GB   | Nicholson, Graeme P. | Reading |       | GB      |
| Drew, Michael G. Reading GB   | Kan, Mark J.         | Reading |       | GB      |
| brew, Michael G.  | Williams, Gareth     | Reading |       | GB      |
| Beer, Paul D. Oxford GB   | Drew, Michael G.     | Reading |       | GB      |
| ,   | Beer, Paul D.        | Oxford  |       | GB      |

US-CL-CURRENT: 549/348; 562/466, 562/471, 562/473

| Title الا | e | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims   | KWIC  | Drawu D |
|-----------|---|----------|-------|--------|----------------|------|-----------|-----------|-------------|----------|-------|---------|
| į         |   | Citation | Front | Review | Classification | vate | Reference | Sequences | Attachments | Clatilis | KOOLO | DIAWA D |

4. Document ID: US 6358431 B1

L4: Entry 4 of 14

File: USPT

Mar 19, 2002

US-PAT-NO: 6358431

DOCUMENT-IDENTIFIER: US 6358431 B1

TITLE: Calixarenes

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawii D |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|----------|
|      |       |          |       |        |                |      |           |        |      |          |
|      |       |          |       |        |                |      |           |        |      |          |

☐ 5. Document ID: US 6342634 B1

L4: Entry 5 of 14

File: USPT

Jan 29, 2002

US-PAT-NO: 6342634

DOCUMENT-IDENTIFIER: US 6342634 B1

TITLE: Calixarenes and their use for sequestration of metals

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Search Manager   | Claims | KVVIC | Drawt De |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--------|-------|----------|
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☐ 6. Document ID: US 6326394 B1

Record List Display

'L4: Entry 6 of 14

File: USPT

Dec 4, 2001

US-PAT-NO: 6326394

DOCUMENT-IDENTIFIER: US 6326394 B1

TITLE: Calixarene tubes as cation receptors

Full Title Citation Front Review Classification Date Reference Company Claims KMC Draw, Do

7. Document ID: US 6297395 B1

L4: Entry 7 of 14

File: USPT

Oct 2, 2001

US-PAT-NO: 6297395

DOCUMENT-IDENTIFIER: US 6297395 B1

TITLE: Calixarenes and their use for sequestration of metals

Full Title Citation Front Review Classification Date Reference State Dees Afficients. Claims KMC Draw. Do

8. Document ID: US 6200936 B1

L4: Entry 8 of 14

File: USPT

Mar 13, 2001

US-PAT-NO: 6200936

DOCUMENT-IDENTIFIER: US 6200936 B1

TITLE: Salicyclic calixarenes and their use as lubricant additives

Full Title Citation Front Review Classification Date Reference Reference Citation Claims KMC Draw Do

☐ 9. Document ID: US 6093517 A

L4: Entry 9 of 14

File: USPT

Jul 25, 2000

US-PAT-NO: 6093517

DOCUMENT-IDENTIFIER: US 6093517 A

TITLE: <u>Calixarenes</u> for use as dissolution inhibitors in lithographic photoresist compositions

Full Title Citation Front Review Classification Date Reference Constitution Claims KMC Draw, De

☐ 10. Document ID: US 5952526 A

L4: Entry 10 of 14

File: USPT

Sep 14, 1999

US-PAT-NO: 5952526

DOCUMENT-IDENTIFIER: US 5952526 A

TITLE: Process for the dealkylating sulfonation of p-alkyl calixarenes

| Full  | Title | Citation | Front  | Review   | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC   | Draw, De |
|-------|-------|----------|--------|----------|----------------|------|-----------|-----------|-------------|--------|--------|----------|
| Clear |       | Genera   | ate Co | llection | Print          |      | wd Refs   | Bkwc      | l Refs      | Gener  | ate OA | cs       |
|       | Те    | rms      |        |          |                |      |           | De        | ocuments    |        |        |          |
|       | L3    | AND (    | 514/   | '\$ OR   | 562/\$)        |      |           |           |             | ]      | L4     |          |

Change Format Display Format: |-

Previous Page Next Page Go to Doc#

# **Hit List**

First Hit Clear Generate Collection Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 11 through 14 of 14 returned.

11. Document ID: US 5846515 A

L4: Entry 11 of 14

File: USPT

Dec 8, 1998

US-PAT-NO: 5846515

DOCUMENT-IDENTIFIER: US 5846515 A

TITLE: <u>Calixarene</u> conjugate diagnostic agents for computerized tomography and method for using same

Full Title Citation Front Review Classification Date Reference Courses Claims KMC Draw Do

12. Document ID: US 5844056 A

L4: Entry 12 of 14

File: USPT

Dec 1, 1998

US-PAT-NO: 5844056

DOCUMENT-IDENTIFIER: US 5844056 A

TITLE: Star polymers having multiple polyisobutylene arms emanating from a calixarene core, initiators therefor, and method for the synthesis thereof

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Dr

☐ 13. Document ID: US 5622687 A

L4: Entry 13 of 14

.File: USPT

Apr 22, 1997

US-PAT-NO: 5622687

DOCUMENT-IDENTIFIER: US 5622687 A

TITLE: Calixarene conjugates useful as MRI and CT diagnostic imaging agents

Full Title Citation Front Review Classification Date Reference Form Claims KWC Draw Do

☐ 14. Document ID: US 5489612 A

L4: Entry 14 of 14

File: USPT

Feb 6, 1996

US-PAT-NO: 5489612

DOCUMENT-IDENTIFIER: US 5489612 A

TITLE: Calixarene chloride-channel blockers

| Full Title | ≘   Citation | Front     | Review | Classification | Date | Reference | <b>菲</b> 須 |                  | DEST-9 | Claims | KVVIC  | Dra |
|------------|--------------|-----------|--------|----------------|------|-----------|------------|------------------|--------|--------|--------|-----|
| 011        |              |           |        |                |      |           | <u> </u>   |                  |        |        |        |     |
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|            | erms         | ate Colle | ection | Print          |      | wd Refs   |            | O Control of the | ents   | Genera | ate OA | ACS |

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Previous Page Next Page Go to Doc#

29 30 59 60 61 62 63 ring bonds : 3-4 4-5 5-6 6-13 7-8 7-12 8-9 9-10 10-11 11-12 13-38 19-20 1-2 1-6 2-3 2-31 21-22 22-23 23-24 24-31 25-26 25-30 26-27 27-28 28-29 29-30 19-24 20-21 20-67 43-48 44-45 45-46 46-47 47-48 38-39 39-40 40-41 41-42 42-49 43-44 37-38 37-42 49-56 55-56 55-60 56-57 57-58 58-59 59-60 60-67 61-62 61-66 62-63 63-64 64-65 65-66 exact/norm bonds :  $2-31 \quad 3-16 \quad 4-15 \quad 5-17 \quad 6-13 \quad 13-38 \quad 20-67 \quad 21-34 \quad 22-33 \quad 23-35 \quad 24-31 \quad 39-52 \quad 40-51 \quad 41-53$ 42-49 49-56 57-70 58-69 59-71 60-67 exact bonds : 7-18 10-13 13-14 25-36 28-31 31-32 43-54 46-49 49-50 61-72 64-67 67-68 normalized bonds : 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 19-20 19-24 20-21 26-27 27-28 28-29 29-30 37-38 37-42 38-39 39-40 45-46 46-47 47-48 55-56 55-60 56-57 57-58 58-59 21-22 22-23 23-24 25-26 25-30

Match level :

40-41 41-42 43-44

43-48 44-45

59-60 61-62 61-66 62-63 63-64 64-65 65-66

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:Atom 38:Atom 39:Atom 40:Atom

41:Atom 42:Atom 43:Atom 44:Atom 45:Atom 46:Atom 47:Atom 48:Atom 49:Atom 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS 55:Atom 56:Atom 57:Atom 58:Atom 59:Atom 60:Atom 61:Atom 62:Atom 63:Atom 64:Atom 65:Atom 66:Atom 67:Atom 68:CLASS 69:CLASS 70:CLASS 71:CLASS 72:CLASS

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=> Uploading C:\Program Files\Stnexp\Queries\060.str

L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

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REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 14:50:55 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 164 TO ITERATE

100.0% PROCESSED 164 ITERATIONS

SEARCH TIME: 00.00.01

L2 23 SEA SSS FUL L1

L3 6 L2

=> d 1-6 ibib abs hitstr

L3 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1313469 CAPLUS

DOCUMENT NUMBER: 147:290782

TITLE: Synthesis of calix[4]pyrogallolarene and its

application in spectrophotometric determination of

23 ANSWERS

V(V) metal

AUTHOR(S): Lokhande, R. S.; Dapale, Sheetal S.; Chaudhary, A. B.;

Nirupa, S.

CORPORATE SOURCE: Department of Chemistry, University of Mumbai, Mumbai,

400 098, India

SOURCE: Asian Journal of Chemistry (2007), 19(1), 505-509

.CODEN: AJCHEW; ISSN: 0970-7077

PUBLISHER: Asian Journal of Chemistry

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Calix[4]pyrogallolarene was synthesized and its characterization was AB carried out using elemental anal., FTIR, NMR technique. The reagent was then used for the development of a new method for the extractive spectrophotometric determination of V(V) metal. The reagent forms complex with the metal to produce blue colored complex which was then extracted into BuOH at pH 4.2 having maxima at 600 nm. The effect of diverse anions and cations was also studied. The developed method was employed to determine V(V) metal from synthetic mixts.

876173-40-9P IT

RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses) (synthesis of calix[4]pyrogallolarene and its application in spectrophotometric determination of V(V) metal)

876173-40-9 CAPLUS RN

Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 CN 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-chlorophenyl)-, stereoisomer (9CI) (CA INDEX NAME)

Relative stereochemistry.

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS 10 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CAPLUS COPYRIGHT 2007 ACS on STN ANSWER 2 OF 6

ACCESSION NUMBER:

2005:450942 CAPLUS

DOCUMENT NUMBER:

143:7514

TITLE:

Preparation of alkylated pyrogallol calixarene type

compounds as anti-viral compounds

INVENTOR(S): PATENT ASSIGNEE(S): Coveney, Donal; Costello, Benjamin Aids Care Pharma Limited, Ire.

U.S. Pat. Appl. Publ., 13 pp. SOURCE: CODEN: USXXCO

DOCUMENT TYPE:

Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND APPLICATION NO. DATE DATE

US 2005113454
PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
GI

A1 20050526 US 2003-722060 US 2003-722060 20031125 20031125

CASREACT 143:7514; MARPAT 143:7514

OR1 OR1 R10  $\mathbb{R}^2$  $R^2$ OR1 R10 R10 OR1 OR1 R10 R<sup>2</sup>  $R^2$ OR1 R10 OR1

AB Compds. of formula I wherein at least one R1 is H and the remainder are CH2CO2K; R2 is CH-Ph-F and L is H are described. The compds. are useful as pharmaceutical compns. in the treatment of AIDS. A process for preparation of I is addnl. claimed, as are pharmaceutical compns. containing I.

IT 433334-86-2DP, alkylated 629614-91-1P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

I

(preparation of alkylated pyrogallol calixarene type compds. as anti-viral compds.)

RN 433334-86-2 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-fluorophenyl)- (9CI) (CA INDEX NAME)

F HO OH OH OH OH OH OH OH

RN

CN Acetic acid, 2,2',2'',-[[2,8,14,20-tetrakis(4-fluorophenyl)-4,6,10,12,16,18,22,24-octahydroxypentacyclo[19.3.1.13,7.19,13.115,19]octac osa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-5,11,17,23-tetrayl]tetrakis(oxy)]tetrakis-, tetrapotassium salt (9CI) (CA INDEX NAME)

●4 K

IT 433334-86-2P 757940-21-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of alkylated pyrogallol calixarene type compds. as anti-viral compds.)

RN 433334-86-2 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN 757940-21-9 CAPLUS

CN Acetic acid, 2,2',2'',2'''-[[2,8,14,20-tetrakis(4-fluorophenyl)-4,6,10,12,16,18,22,24-octahydroxypentacyclo[19.3.1.13,7.19,13.115,19]octac osa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-5,11,17,23-

$$HO_2C-CH_2-O$$
 $HO_2C-CH_2-O$ 
 $HO_2C-CH_2-O$ 

### ●12 K

L3 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:437628 CAPLUS

DOCUMENT NUMBER: 144:246002

TITLE: Spectrophotometric determination of Mo(VI) metal using

calix(4)pyrogallolarene and its application

AUTHOR(S): Lokhande, R. S.; Dapale, Sheetal S.; Chaudhary, A. B.

CORPORATE SOURCE: Department of Chemistry, University of Mumbai, Mumbai,

400 098, India

SOURCE: International Journal of Chemical Sciences (2005),

3(1), 115-120

CODEN: IJCSIL; ISSN: 0972-768X

PUBLISHER: Sadguru Publications

DOCUMENT TYPE: Journal LANGUAGE: English

AB Calix(4)pyrogallolarene was synthesized and it was characterized using elemental anal. FTIR and NMR data. The reagent was then used for

development of a new method for the extractive spectrophotometric

determination of

Mo (VI) metal. The reagent forms brown colored complex with the metal, which was then extracted with BuOH at pH 2.0 having maxima at 580 nm. The effect of diverse anions and cations was also studied. Sandell sensitivity and Molar Absorptivity was calculated The developed method was employed to determine Mo (VI) metal from anal. samples.

IT 876173-40-9P

RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(spectrophotometric determination of Mo(VI) metal using

calix(4)pyrogallolarene

and its application)

RN 876173-40-9 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-chlorophenyl)-, stereoisomer (9CI) (CA INDEX NAME)

Relative stereochemistry.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:947709 CAPLUS

DOCUMENT NUMBER:

140:16573

TITLE:

Preparation of calixarene-derivatives having

anti-viral activity

INVENTOR(S):

Coveney, Donal; Costello, Benjamin

PATENT ASSIGNEE(S): SOURCE:

Aids Care Pharma, Limited, Ire. Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO.       | F         | KIND I   | DATE      | APPLICATION NO.       | DATE           |
|------------------|-----------|----------|-----------|-----------------------|----------------|
|                  |           |          |           |                       |                |
| EP 1367044       | •         | A1 2     | 20031203  | EP 2003-76538         | 20030521       |
| R: AT,           | BE, CH, I | DE, DK,  | ES, FR,   | GB, GR, IT, LI, LU, N | L, SE, MC, PT, |
| IE,              | SI, LT, I | LV, FI,  | RO, MK,   | CY, AL, TR, BG, CZ, E | E, HU, SK      |
| PRIORITY APPLN.  | INFO.:    |          |           | EP 2003-76538         | 20030521       |
| OTHER SOURCE(S): | C         | CASREAC! | T 140:165 | 73; MARPAT 140:16573  |                |
| GI               |           |          |           |                       |                |

AB The patent relates to the preparation of compds. I wherein at least one R1 = H and the remainder = CH2CO2K; R2 = 4-fluorophenyl; and L = H. The compds. are useful as pharmaceutical compns. in the treatment of AIDS. Thus, a pyrogallol calixarene derivative prepared by reacting pyrogallol and p-fluorobenzaldehyde to form pyrogallol calixarene; treated with potassium carbonate and Et bromoacetate; and followed by hydrolysis gave EC50 of 1.25  $\mu$ M compared to 0.5-1.0 for the control (AC-1) in HIV-1 antiviral assay.

IT 433334-86-2DP, carboxymethylated, potassium salts 629614-91-1P 629614-93-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of calixarene-derivs. having anti-viral activity)

RN 433334-86-2 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN 629614-91-1 CAPLUS CN Acetic acid. 2.2'.2

Acetic acid, 2,2',2'',2'''-[[2,8,14,20-tetrakis(4-fluorophenyl)-4,6,10,12,16,18,22,24-octahydroxypentacyclo[19.3.1.13,7.19,13.115,19]octac osa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-5,11,17,23-tetrayl]tetrakis(oxy)]tetrakis-, tetrapotassium salt (9CI) (CA INDEX NAME)

### ● 4 K

### PAGE 1-A

$$HO_2C-CH_2-O$$
 $HO_2C-CH_2-O$ 
 $HO_2C-CH_2-O$ 

433334-86-2P 629614-94-4P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of calixarene-derivs. having anti-viral activity)

RN 433334-86-2 CAPLUS

Pentacyclo [19.3.1.13,7.19,13.115,19] octacosa-1(25),3,5,7(28),9,11,13(27),1 CN 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN

629614-94-4 CAPLUS Acetic acid, 2,2',2'',2'''-[[2,8,14,20-tetrakis(4-fluorophenyl)-CN 4,6,10,12,16,18,22,24-octahydroxypentacyclo[19.3.1.13,7.19,13.115,19]octac osa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-5,11,17,23tetrayl]tetrakis(oxy)]tetrakis-, tetraethyl ester (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:428850 CAPLUS

DOCUMENT NUMBER: 137:6006

TITLE: Preparation of Calixarenes as Anti-viral compounds

INVENTOR(S):
Harris, Stephen J.

PATENT ASSIGNEE(S): Aids Care Pharma Limited, Ire.

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT         | NO.         | KINI    | KIND DATE   |       |       |       | ICAT: | ION I    | NO. | DATE |      |           |     |
|----------------|-------------|---------|-------------|-------|-------|-------|-------|----------|-----|------|------|-----------|-----|
| WO 2002        | 044121      | A1      | 2002        | 0606  | ,     | WO 20 | 001-  | IE15     | 0   |      | 2    | 0011      | 130 |
| ₩•             | AE, AG,     | AT. AM. | AT. AT.     | AU.   | AZ.   | BA.   | BB.   | BG.      | BR. | BY.  | BZ.  | CA,       | CH. |
| ",             | CN, CO,     |         |             |       |       |       |       |          |     |      |      |           |     |
|                | FI, GB,     |         |             |       |       |       |       |          |     |      |      |           |     |
|                | KR, KZ,     |         |             |       |       |       |       |          |     |      |      |           |     |
|                |             |         |             |       |       |       |       |          |     |      |      |           |     |
|                | MZ, NO,     |         |             |       |       |       |       |          |     |      |      |           |     |
|                | TR, TT,     |         | UG, US,     | UΔ,   | VIV , | ΙU,   | ΔA,   | ΔW,      | AM, | AZ,  | ы,   | KG,       | κΔ, |
|                | MD, RU,     | •       |             |       |       |       |       |          |     |      |      |           |     |
| RW:            | GH, GM,     | KE, LS, | MW, MZ,     | SD,   | SL,   | SZ,   | TZ,   | ŪĠ,      | ZM, | ZW,  | ΑT,  | ΒE,       | CH, |
|                | CY, DE,     | DK, ES, | FI, FR,     | GB,   | GR,   | ΙE,   | IT,   | LU,      | MC, | NL,  | PT,  | SE,       | TR, |
|                | BF, BJ,     | CF, CG, | CI, CM,     | GΑ,   | GN,   | GQ,   | GW,   | ML,      | MR, | NE,  | SN,  | TD,       | TG  |
| AU 2002        | 020992      | A5      | 2002        | 0611  | 2     | AU 20 | 002-2 | 20992    | 2   |      | 20   | 0011      | 130 |
|                | 884         |         |             |       |       |       |       |          |     |      |      | 0011      | 130 |
|                | AT, BE,     |         |             |       |       |       |       |          |     |      |      |           |     |
| 200            | IE, SI,     |         |             |       |       |       |       | ,        | ,   | ,    | ,    | ,         | ,   |
| PRIORITY APP   |             |         | 11, 110,    | ,     |       | IE 20 |       | 983      |     | ,    | A 20 | 00013     | 201 |
| EKTOKIII MEE   | LIV. TIVEO. | •       |             |       |       | WO 20 |       |          |     |      |      | 0011      |     |
| 001100 0011000 | (0)         | C T C T | ND 2 CM 1 2 | 7 600 |       |       |       |          |     |      | . 2  | J J I I . |     |
| OTHER SOURCE   | (S):        | CASE    | CEACT 13    | /:600 | 76; I | MARPA | 41 I. | 3 / : 61 | 006 |      |      |           |     |
| GI             |             |         |             |       |       |       |       |          |     |      |      |           |     |

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Title compds. I [R1 = OCH2CO2K, OCH2CO2H or OCH2CONH2; R2 = R1 or NO2; R3 = H, 2-HO2CCH2OC6H4, or 4-XC6H4 where X = halo (preferably F or Br); R4 = H or halo (preferably Br)] are prepared and disclosed as antiviral agents. Thus, II was prepared in four steps via cyclocondensation 4-fluorobenzaldehyde with pyrogallol and subsequent bromination, O-alkylation with Et bromoacetate and hydrolysis with KOH. II possessed a therapeutic index (TC50/EC50 µm) of 4,000. I were found to have an additive effect when administered with AZT, and therefore, the compds. are useful as pharmaceutical compns. in the treatment of AIDS.

IT 433334-86-2P 433334-87-3P 433334-88-4P

433334-94-2P 433334-95-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediates; preparation and antiviral activity of calixarenes as anti-AIDS agents)

RN 433334-86-2 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN 433334-87-3 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1
5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol,
25,26,27,28-tetrabromo-2,8,14,20-tetrakis(4-fluorophenyl)- (9CI) (CA
INDEX NAME)

PAGE 1-A

PAGE 2-B

OEt

RN 433334-94-2 CAPLUS CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-bromophenyl)- (9CI) (CA INDEX NAME)

RN 433334-95-3 CAPLUS

CNPentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 25,26,27,28-tetrabromo-2,8,14,20-tetrakis(4-bromophenyl)- (9CI) (CA INDEX NAME)

IT 433334-81-7P 433334-85-1P

> RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compds.; preparation and antiviral activity of calixarenes as anti-AIDS agents)

RN CN

433334-81-7 CAPLUS Acetic acid, 2,2',2'',2''',2'''',2'''',2''''',2''''',2''''',2''''' ''',2''''',2'''''',2''''''-[[25,26,27,28-tetrabromo-2,8,14,20-tetrakis(4fluorophenyl)pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecayl]dodecakis(oxy)]dodecakis-, dodecapotassium salt (9CI) (CA INDEX NAME)

●12 K

NH2

PAGE 3-A

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS 3 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1995:994163 CAPLUS

DOCUMENT NUMBER:

124:55584

TITLE:

Preparation of calixarene-based compounds having

antibacterial, antifungal, anticancer, and anti-HIV

activity

INVENTOR (S):

Harris, Stephen J.

PATENT ASSIGNEE(S):

Ire.

SOURCE:

PCT Int. Appl., 148 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA:      | PATENT NO. |     |      |     | KIN | KIND DATE |      |      | -   | APPL | ICAT | ION  | NO. |     | D   | ATE  |     |
|----------|------------|-----|------|-----|-----|-----------|------|------|-----|------|------|------|-----|-----|-----|------|-----|
|          | <b></b>    |     |      |     |     | -         |      |      |     |      |      |      |     |     | -   |      |     |
| WO       | 9519       | 974 |      |     | A2  |           | 1995 | 0727 | 1   | WO 1 | 995- | IE8  |     |     | 1   | 9950 | 124 |
| WO       | WO 9519974 |     |      |     | À3  |           | 1995 |      |     |      |      |      |     |     |     |      |     |
|          | W:         | AT, | AU,  | BB, | BG, | BR,       | BY,  | CA,  | CH, | CN,  | CZ,  | DE,  | DK, | FI, | GB, | ΗÜ,  | JP, |
|          |            |     |      |     | RO, |           |      |      |     |      |      |      |     |     |     |      |     |
|          | RW:        | AT, | BE,  | CH, | DE, | ES,       | FR,  | GB,  | GR, | ΙE,  | LU,  | NL,  | SE, | GA, | ML, | ΝE,  | SN, |
|          |            | TD, | TG   |     |     |           |      |      |     |      |      |      |     |     |     |      |     |
| AU       | 9515       | 453 |      |     | A   |           | 1995 | 8080 | 1   | AU 1 | 995- | 1545 | 3   |     | 1   | 9950 | 124 |
| PRIORITY | Y APP      | LN. | INFO | . : |     |           |      |      |     | IE 1 | 994- | 57   |     |     | A 1 | 9940 | 124 |
|          |            |     |      |     |     |           |      |      | 1   | WO 1 | 995- | IE8  |     |     | A 1 | 9950 | 124 |

OTHER SOURCE(S): MARPAT 124:55584

For diagram(s), see printed CA Issue.

Calixarene-based compds., which are calixarenes or oxacalixarenes, acyclic AB phenyl-formaldehyde oligomers, cyclotriveratrylene derivs., cyclic tetrameric resorcinol-aldehyde derivs. known as Hogberg compds. and cyclic tetrameric pyrogallol-aldehyde derivs., are prepared For example, calixarenes or oxacalixarenes are represented by general formula [I; n + m]= 3-8; m = 0-3; n = 0-8; R1 = H, halo, hydrocarbyl, aryl, (un) substituted hydrocarbylaryl, NO2, SO3M1; wherein M1 = alkali metal, SO3H; R1 = OR2; wherein R2 = CH2CO2R3, CH2CO2Mp/p, CH2CONR4R5; wherein R3 = (un)substituted alkyl; M = metal, ammonium ion; p = the charge on the metal ion; R4 or R5 may be the same or different, or both may be part of amino acid ester of poly(amino acid ester) or one or more of the same or different amino acids or part of a cyclic polyene antibiotic/antifungal

drug or part of a cyclic nitrogen heterocycle; X = halo, NO2, CO2H, cyano, other electron withdrawing group]. Thus, n-butyraldehyde and pyrogallol in a 1:4 mixture of 37% aqueous HCl and EtOH was refluxed under N for 90 min to give a cyclic tetramer (II; R = X = H), which was brominated with Br in CHCl3 to II (R = H, X = Br) and etherified with Et bromoacetate in the presence of K2CO3 in refluxing acetone to give II (R = CH2CO2Et, X = Br). The latter compound was saponified with KOH in refluxing EtOH, acidified with aqueous HCl, and treated with 25% aqueous NH4OH to give II (R = CH2CO2-NH4+, X = CH2CO2-NH4+

Br). The latter compound in vitro inhibited the infection of C8166 cells with HIV-2, SIV (Simian immunodeficiency virus), and HIV-1 with EC50 of 10, 20, and 0.03  $\mu M_{\odot}$ 

TT 171799-80-7P 171799-81-8P 171799-82-9P 171799-89-6P 171799-90-9P 171799-91-0P 171799-95-4P 171799-96-5P 171799-97-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of calixarene-based compds. having antibacterial, antifungal, anticancer, and anti-HIV activity)

RN 171799-80-7 CAPLUS

PAGE 1-A

### ●12 K

PAGE 1-A

PAGE 4-A

| RN | 171799-82-9   | CAPLUS  |
|----|---------------|---|
| CN | Acetic acid,  | 2,2',2'',2''',2'''',2''''',2'''''',2''''''                  |
|    | 111,21111111  | 11,211111111-[[25,26,27,28-tetrabromo-2,8,14,20-(10-chloro- |
|    | 9-anthracenyl | .)pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-             |
|    | 1(25),3,5,7(2 | (8), 8, 11, 13 (27), 15, 17, 19 (26), 21, 23-dodecaene-     |
|    | 4,5,6,10,11,1 | .2,16,17,18,22,23,24-dodecayl]dodecakis(oxy)]dodecakis-,    |
|    |               | nm salt (9CI) (CA INDEX NAME)                               |

PAGE 1-A

PAGE 3-A

PAGE 4-A

# ●12 NH3

●12 K

$$_{\rm HO_2C}$$
  $_{\rm CO_2H}$   $_{\rm CO_2H}$ 

### ●12 NH3

●12 K

$$CO_{2}H$$
 $CO_{2}H$ 
 $CO_{2}H$ 

$$CO_2H$$
 $CO_2H$ 
 $CO_2H$ 

●12 NH3